

***LineUp With Math™* Alignment to
Mathematics Grade-Level Standards
Adopted April 2002**

Calculations and Estimations

Common Curriculum Goal (CCG): Numbers:

Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

| Grade-Level Standards | <i>LineUp With Math™</i> Activities |
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| M.08.1.A.1(2) Apply proportions to solve problems. | --Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control. |
| M.08.1.A.1(4) Apply equivalent forms of rational numbers (including percents) to solve problems. | --Use percent relationships to resolve distance, rate, time conflicts in air traffic control. |

Measurement

CCG: Direct & Indirect Measurement:

Apply appropriate techniques, tools, and formulas to determine measurements.

| Grade-Level Standards | <i>LineUp With Math™</i> Activities |
|--|---|
| M.08.4.B.1(3) Solve problems involving rates and derived measurements for such attributes as speed, velocity, and density. | --Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts. --Identify and resolve distance, rate, time conflicts in air traffic control problems by varying plane speeds or changing plane routes. |

Mathematical Problem Solving

CCG: Conceptual Understanding:

Select, apply, and translate among mathematical representations to solve problems.

| Grade-Level Standards | <i>LineUp With Math™</i> Activities |
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| M.08.6.A.1(1) Interpret the concepts of a problem-solving task and translate them into mathematics. | --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. |
| <i>CCG: Processes and Strategies:</i> Apply and adapt a variety of appropriate strategies to solve problems. | |
| Grade-Level Standards | <i>LineUp With Math™</i> Activities |
| M.08.6.B.1(1) Choose strategies that can work and then carry out the strategies chosen. | --Choose and apply a variety of strategies to optimize the solution of air traffic control conflicts. |

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| CCG: Communication: Communicate mathematical thinking coherently and clearly. Use the language of mathematics to express mathematical ideas precisely. | |
| Grade-Level Standards M.08.6.D.1(1) Use pictures, symbols, and/or vocabulary to convey the path to the identified solution. | LineUp With Math™ Activities --Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts. |
| CCG: Accuracy: Accurately solve problems that arise in mathematics and other contexts. | |
| Grade-Level Standards M.08.6.E.1(1) Accurately solve problems using mathematics. | LineUp With Math™ Activities --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. |